

## ABSTRACT

A method and system for use in treating a patient receiving an anticoagulant or a substance containing warfarin to optimize therapy and prevent an adverse drug response. This system employs surrogate markers or indicators including blood levels of the anticoagulant to determine the next required dose for a patient. Since the surrogate markers are employed as a percent change in status, virtually any indicator can be used. Surrogate markers could include any measure of the effectiveness of the anticoagulant's action. Given the effectiveness of the anticoagulant's action relative to the surrogate markers, a change in anticoagulant dose is calculated by the system. Conversely, by employing this system, one could determine the expected result of the anticoagulant dose change on the surrogate markers.